DEPARTMENT OF HEALTH AND HUMAN SERVICES

Request for Information: Regarding a Revision to U.S. Public Health Service Guideline: Assessing Solid Organ Donors and Monitoring Transplant Recipients for Human Immunodeficiency Virus, Hepatitis B Virus, and Hepatitis C Virus Infection

AGENCY: Office of the Assistant Secretary for Health, Office of the Secretary, Department of Health and Human Services.

ACTION: Request for information.

SUMMARY: The Office of the Assistant Secretary for Health in the Department of Health and Human Services (HHS) seeks public comment regarding a proposed revision to the 2020 PHS Guideline Assessing Solid Organ Donors and Monitoring Transplant Recipients for Human Immunodeficiency Virus, Hepatitis B Virus, and Hepatitis C Virus Infection (1). The Organ Procurement and Transplantation Network (OPTN) implemented a policy change related to organ transplant candidate assessment and testing on March 1, 2021, to align OPTN policy with the new Guideline recommendations (2). Previous PHS Guideline recommendations did not include a specific timeframe during which pre-transplant testing for HIV, HBV, and HCV infections among organ transplant candidates should occur. In order to more accurately assess pre-transplant infection status and to enable the investigation of possible solid organ donor transmission of infection, the 2020 Guideline specified that pre-transplant HIV, HBV, and HCV testing of transplant candidates should occur during hospital admission for transplant surgery but prior to the implantation of the organ. In May 2021, HHS reviewed communications from members of the public to the OPTN, outlining concerns that the additional amount of blood drawn for infectious disease testing (when added to the relatively large amount of blood required for immediate preoperative laboratory testing) during the admission for transplantation poses potential risks for some pediatric organ transplant candidates. Potential risks due to blood volume loss include those related to preoperative low body weight (and low blood volume), anemia, or exacerbation of underlying co-morbid conditions. HHS conducted a review of the most recent HIV,

HBV, and HCV surveillance data in the United States as stratified by age group. Additionally, HHS engaged with relevant stakeholders during May–November 2021, to understand implications of policy changes on organ transplantation and organ utilization. In December 2021, findings from these analyses were presented to the Advisory Committee on Blood and Tissue Safety and Availability (ACBTSA). The committee considered whether a revision to the Guideline recommendation pertaining to pre-transplant testing of candidates ≤10 years of age is warranted. Based on feedback from the ACBTSA and analyses specified above, HHS is proposing changes pertinent to the timing of pre-transplant testing for candidates ≤10 years of age. HHS is asking respondents to review the proposed revision to the current Guideline (listed in the Supplementary Information section of this notice) and provide assessments on updating the Guideline, whether this change is achievable in the clinical setting, or if there are potential barriers to implementation. In addition, impact on organ allocation and utilization should be considered. Other comments pertinent to this proposed revision are welcome.

DATES: To be assured consideration, comments must be received at the address provided below no later than 5:00pm ET on **[INSERT DATE 30 DAYS AFTER PUBLICATION IN THE FEDERAL REGISTER].**

ADDRESSES: Electronic responses are strongly preferred and may be addressed to ACBTSA@hhs.gov. Please include in the subject line of the email: ACBTSA – RFI.

FOR FURTHER INFORMATION CONTACT: Mr. James Berger, Designated Federal Official, Office of Infectious Disease and HIV/AIDS Policy, 202-795-7608

SUPPLEMENTARY INFORMATION: Background: Since the emergence of the human immunodeficiency virus (HIV) epidemic in the 1980s, the U.S. Public Health Service (PHS) has made recommendations to reduce the risk of HIV transmission associated with organ transplantation (3, 4). Historically, recommendations included identifying risk factors among organ donors associated with HIV infection to minimize risk of potential transmission to recipients. Recommendations also included laboratory screening of donors using anti-HIV antibody testing, with additional testing recommendations added as technologies such as nucleic acid testing (NAT) were developed. In 2013, based on donor-

derived transmission events and reports of poor recipient outcomes from hepatitis B virus (HBV) and hepatitis C virus (HCV) transmission, the PHS released a revised guideline. The 2013 Guideline added organ donor screening recommendations for HBV (hepatitis B surface antigen [HBsAg] and total antibody to hepatitis B core antigen [total anti-HBc]) and HCV (antibody to hepatitis C [anti-HCV] and HCV RNA by NAT), in addition to HIV, to reduce the risk of unintended transmission through transplantation (5). This revised Guideline was enhanced by recommending specific recipient informed consent and post-transplant recipient monitoring for evidence of possible disease transmission.

In 2020, the Guideline was updated to reflect changes in the epidemiology of HIV, HBV, and HCV infections, advances in testing, and the widespread availability of highly effective (for HIV and HBV) and curative (for HCV) treatment. In addition to several other updated recommendations, the 2020 Guideline specified that all transplant candidates should be tested prior to surgery for HIV, HBV, and HCV infections, with testing to occur during hospital admission for transplant but before transplantation (1). This recommendation was implemented in order to more accurately assess pre-transplant infection status and to enable the investigation of whether infectious disease transmission may have occurred through transplantation. Based on the feedback from members of the public that this requirement for repeat screening at the time of transplantation might pose potential harm to some pediatric patients due to blood volume loss, HHS (including CDC and HRSA) conducted additional analyses of surveillance data. Additionally, CDC and HRSA also participated in a work group convened by the OPTN and which included members of the OPTN Disease Transmission Advisory Committee and Pediatric Committee.

CDC surveillance data for the years 2015–2019 pertaining to incident HIV infections among pediatric populations in the United States were reviewed. Briefly, 524 children <13 years of age in the United States and 6 U.S. territories and freely associated states received a new diagnosis of HIV infection from 2015–2019. Overall, 181 (35%) of these 524 children received their diagnosis of HIV infection between 0–5 months of age; an additional 23 (4%) were diagnosed between 6–11 months of age. With effective perinatal elimination efforts, prevalence and incidence of HIV infection in children <13 years of age in the United States have been steadily decreasing (6). Children <13 years of age are among the lowest risk group for new HIV infections in the United States. Estimated prevalence of HIV infection in

children <13 years of age in the United States is <2,000; incidence in this age group is <100 cases per year, and most of these are perinatally acquired (6). With perinatal testing and clinical follow-up of exposed children, it is unlikely that a transplant candidate ≤10 years of age would have an undiagnosed HIV infection at the time of organ transplantation.

CDC surveillance data for 2019 pertaining to incident HBV and HCV infections among pediatric populations in the United States were also reviewed. Incident HBV and HCV infections are similarly low among children in the United States. The rate of acute HBV infection in persons <20 years in the United States was 0.0 per 100,000 population as of 2019 (7). Additionally, more than 90% of 2-year-olds and adolescents in the United States have been vaccinated against HBV (8, 9). The rate of acute HCV infection in persons <20 years in the United States was 0.1 per 100,000 population as of 2019 (7). Perinatal exposure is the most common mode of transmission for HCV infection in children.

In December 2021, HHS convened the Advisory Committee on Blood and Tissue Safety and Availability (ACBTSA) to receive expert input on whether, and if so, how, the current PHS Guideline recommendation pertaining to pre-transplant testing of pediatric candidates should be revised (https://www.hhs.gov/oidp/advisory-committee/blood-tissue-safety-availability/meetings/2021-12-01/index.html). Additionally, HHS solicited input from this committee on the specific question as to whether available data support exempting solid organ transplant candidates who are ≤10 years of age at the time of transplant (and who have received postnatal infectious disease testing) from the recommendation for HIV, HBV, and HCV testing during hospital admission for transplant but prior to anastomosis of the first organ. The committee voted unanimously in favor of the change.

Potential revision to the 2020 Guideline: HHS has reviewed the ACBTSA recommendations and other available information and is considering the following revision to current recommendations in the 2020 Guideline.

Exempt solid organ transplant candidates who are ≤10 years of age at the time of transplant (and who have received postnatal infectious disease testing) from the recommendation for HIV, hepatitis B virus,

and hepatitis C virus testing during the hospital admission for transplant but prior to anastomosis of the first organ.

HHS is not considering changes to any other 2020 Guideline recommendations. We seek informed feedback regarding this proposed change to the recommendations in the 2020 Guideline.

Dated: January 25, 2022.

James J. Berger,

Designated Federal Officer,

Advisory Committee on Blood and Tissue Safety and Availability,

Office of Infectious Disease and HIV/AIDS Policy.

FOOTNOTES:

1. Jones JM, Kracalik I, Levi ME, et al. Assessing Solid Organ Donors and Monitoring Transplant Recipients for Human Immunodeficiency Virus, Hepatitis B Virus, and Hepatitis C Virus Infection — U.S. Public Health Service Guideline, 2020. MMWR Recomm Rep 2020;69(No. RR-4):1–16. DOI: http://dx.doi.org/10.15585/mmwr.rr6904a1

2. OPTN *Policy 15.2: Candidate Pre-Transplant Infectious Disease Reporting and Testing Requirements*. Available: https://optn.transplant.hrsa.gov/media/eavh5bf3/optn-policies-effective-as-of-dec-6-2021-e-signature.pdf

3. CDC. Guidelines for preventing transmission of human immunodeficiency virus through transplantation of human tissue and organs. Centers for Disease Control and Prevention. MMWR Recommendations and reports : Morbidity and mortality weekly report Recommendations and reports / Centers for Disease Control. 1994;43(RR-8):1-17.

4. CDC. Testing donors of organs, tissues, and semen for antibody to human T-lymphotropic virus type III/lymphadenopathy-associated virus. MMWR Morbidity and mortality weekly report. 1985;34(20):294.

5. Seem DL, Lee I, Umscheid CA, Kuehnert MJ. PHS guideline for reducing human immunodeficiency virus, hepatitis B virus, and hepatitis C virus transmission through organ transplantation. Public health reports (Washington, DC : 1974). 2013;128(4):247-343.

6. Centers for Disease Control and Prevention. *HIV Surveillance Report, 2019*; vol.32. http://www.cdc.gov/hiv/library/reports/hiv-surveillance.html. Published May 2021.

7. Centers for Disease Control and Prevention. 2019 Viral Hepatitis Surveillance Report. https://www.cdc.gov/hepatitis/statistics/SurveillanceRpts.htm. Published July 2021.

8. FastStats - Immunization (cdc.gov): https://www.cdc.gov/nchs/fastats/immunize.htm

9. Elam-Evans LD, Yankey D, Singleton JA, et al. National, Regional, State, and Selected Local Area Vaccination Coverage Among Adolescents Aged 13–17 Years — United States, 2019. MMWR Morb Mortal Wkly Rep 2020;69:1109–1116. DOI: http://dx.doi.org/10.15585/mmwr.mm6933a1

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